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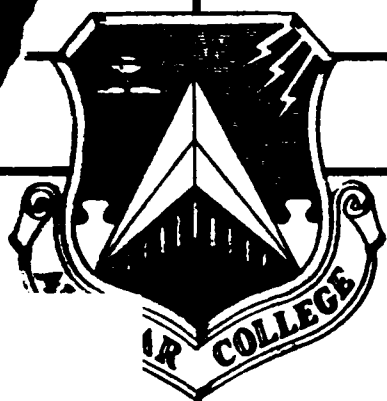
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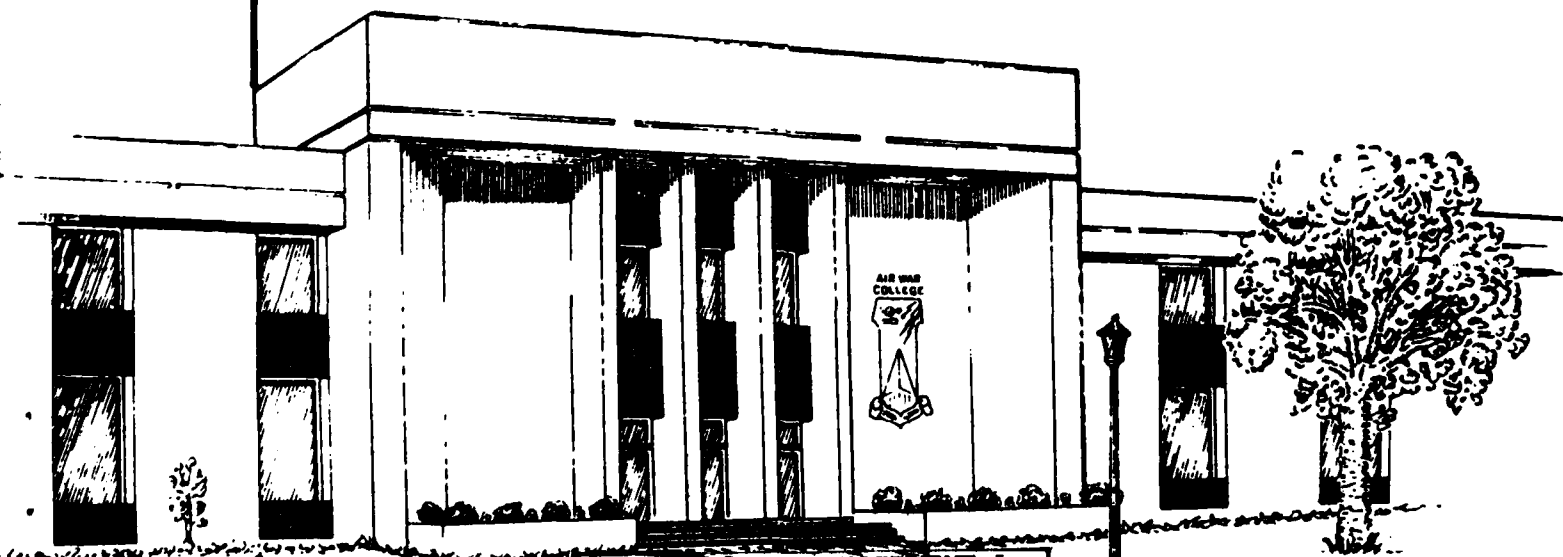
RESEARCH REPORT

A HISTORY OF CAMOUFLAGE: CONCEALMENT AND DECEPTION

AD-A216 593

LT COL HAMPTON P. CONLEY

1988



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A HISTORY OF CAMOUFLAGE, CONCEALMENT AND DECEPTION

by

Hampton P. Conley
Lieutenant Colonel, USA

A RESEARCH REPORT SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE RESEARCH

REQUIREMENT

Research Advisor: Colonel William C. Allison

MAXWELL AIR FORCE BASE, ALABAMA

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AIR WAR COLLEGE RESEARCH REPORT ABSTRACT

TITLE: A History of Camouflage, Concealment, and Deception

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Historical examples of the use of camouflage, concealment and deception are briefly discussed. Although examples go from biblical time to the present, the focus is on the period beginning with World War II. A listing of the fifteen major lessons learned from the historical study is developed and discussed. Two key points are that the U.S. has not used strategic deception very much, yet history shows that most deception operations are successful. The lessons learned should help doctrine writers and deception planners.

BIOGRAPHICAL SKETCH

Lieutenant Colonel Hampton P. Conley (M.S., Troy State University) has been interested in camouflage, concealment and deception since he was an instructor for field fortifications and camouflage at the U.S. Army Infantry School in 1968. He served two tours in South Vietnam and commanded the 46th Engineer Battalion at Fort Rucker, Alabama. He is a graduate of the Army Command and General Staff College and of the Air War College, class of 1988.

CHAPTER I

INTRODUCTION

We keep hammering along with the conviction that "honesty is the best policy;" these pretty sentences do well for a child's copy-book, but the man who acts upon them in war had better sheath his sword forever.

Field Marshal Lord Wolseley (11,36)

Camouflage, concealment, and deception have been ignored in our military schools and doctrinal literature to a large extent since the end of the Vietnam War. The services are showing renewed interest in camouflage and deception. The Army is developing new camouflage and deception doctrine and draft joint doctrine has been written. In this paper I shall review historical examples on the use of camouflage, concealment and deception in order to develop a list of lessons we should have learned about their use. While some older historical examples will be explored the focus will be on the period from World War II to the present.

CHAPTER II

DEFINITIONS

The Dictionary of Military and Associated Terms (JCS Pub 1) defines deception as "those measures designed to mislead the enemy by manipulation, distortion, or falsification of evidence to induce him to react in a manner prejudicial to his interests." (7,105) The definition of concealment is "the protection from observation or surveillance" (7,83) and camouflage is "the use of natural or artificial material on personnel, objects or tactical positions with the aim of confusing, misleading or evading the enemy." (7,60)

Camouflage and Concealment

If concealment is the hiding of military operations, equipment or installations then it is really one of the means of achieving camouflage. Certainly if we hide something from the enemy we are ". . . confusing, misleading, or evading." One method used to conceal military activities from the enemy during World War II was employment of smoke generators. A smokescreen 60 miles long was maintained for four days to conceal the Rhine crossings. (21,100)

The other method of achieving camouflage is the display. Displays have an opposite objective from

concealment in that they are to draw the enemy's attention in order to mislead him. (21,98) Prior to the Normandy invasion dummy paratroopers

. . . were dropped about 100 miles to the west of the main Allied landings to create an airborne diversion. . . . This created considerable confusion among the Germans, and the entire German defense was mobilized and numerous German reserves were sent to this zone. (21,99)

Deception

Deception attempts to create a fake picture of reality in the mind of the enemy. This is accomplished using false information, demonstration attacks, diversions, dummy means and works, etc. Camouflage and concealment are two means used to deceive the enemy. When the term deception is used in this paper it includes camouflage and concealment.

States tend to use deception for different reasons. Strong nations use deception to achieve victory easier and with fewer losses while weaker nations use deception to make up for their lack of strength and means. (25,92)

Effective deception will cause the adversary to waste his resources, to spread his forces thinly, to vacate or reduce the strength of his forces at the decisive point of attack, to tie considerable forces up at the wrong place at the worst time; it will divert his attention from critical to trivial areas of interest, numb his alertness and reduce his readiness, increase his confusion, and reduce his certainty. In short, reducing the cost for the deceiver implies increasing the cost for the deceived. (8,143) [Emphasis in original]

Deception is either active or passive. Passive deception relies on secrecy and camouflage to hide our capabilities and/or intentions from the enemy. Active

deception is normally a planned series of lies with evidence to prove them to the enemy. (8,133-134)

There are three basic types of deception. The first type attempts to cause the enemy to focus his attention on the wrong place. The Allies used this type of deception to convince the Germans that the Normandy invasion would really take place at Pas de Calais.

The second type tries to make the enemy waste his resources (time, ammunition, weapons, manpower, fuel) in unimportant directions or on dummy targets. During the Battle of Britain, the British set up phony targets and interfered with the German's navigational aids causing them to attack non-existent airfields and factories.

The third type of deception is used to surprise the opponent and catch him unprepared for action. (8,124-125) Surprising the enemy has always been regarded as an integral part of the art of war. (25,92) According to the military strategist Carl von Clausewitz, "Surprise is more or less at the bottom of all military enterprises." Surprise is the "product of speed and secrecy." The enemy must not learn your real intentions until it is too late to react effectively. (17,100)

Surprise

In Surprise Attack: Lessons for Defense Planning Richard K. Betts studied the element of surprise in combat operations and concluded:

Increments of forces provide an arithmetical advantage, but the effects of shock are geometrical. Surprise is a force multiplier . . . the combat capability of the side achieving surprise was--on the average--almost doubled. (1,5)

Surprise alone is not enough to defeat the enemy. We must have a viable and sustainable plan in order to succeed in battle. Major Muhammad Nagi Khan, writing in The Owl (Pakistan) asserts ". . . that without good generalship we may only succeed in astonishing the enemy rather than surprising him." (17,100)

Surprise is one of the seven Soviet principles of military art. The Soviets view surprise as a series of offensive, unexpected actions that will alter the correlation of forces in favor of the attacker. (27,5) They define surprise as "unexpected actions at all levels against an adversary". (27,6)

The essence of deception is "to attain rapid and complete victory by surprising the enemy, thereby inflicting heavy enemy losses and minimizing friendly force attrition." (27,9)

CHAPTER III

DECEPTION PRIOR TO THE 20TH CENTURY

Sun Tzu wrote that "The history of warfare is the history of deception." (17,101)

Gideon

One of the earliest recorded deception operations occurred in the 13th Century B.C. The Bible, in the book of Judges, records how Gideon defeated the Midianites by having soldiers make noise by breaking pitchers and blowing trumpets. The Midianites fled thinking it faced a huge enveloping force when there were only 300 men.

The Trojan Horse

In the 12th Century B.C., Greek warriors tried unsuccessfully to beat down the defenses of the city of Troy for 10 years. They built a large wooden horse, hid soldiers inside the horse, left it on the beach and sailed away. Greek soldiers, who remained behind posing as deserters, told the Trojans the animal was an offering to the Goddess Athena and that "disaster would befall the Greeks should the horse be taken into Troy." (30,viii-ix)

The Trojans pulled the horse inside the city walls. The "deserters" opened the horse's secret door that night. The Greeks overpowered the Trojan soldiers who were on guard and opened the gates to the city. Their comrades entered the city and defeated the Trojans.

For the invasion of Norway in April, 1940 the Germans used a modern variation of the Trojan Horse. They hid soldiers, artillery, horses, etc. in merchant ships and sailed into Norwegian ports. (30,99-109)

Alexander the Great

In 326 B.C. Alexander the Great invaded what is now Pakistan. He arrived at a river which was at flood stage, about a half mile wide and unfordable. The enemy army was on the far side. He planned to lull the enemy into a false sense of security and deceive him as to the location of his main river crossing site. Stories were spread that he would wait until the monsoon rains were over and the river receded before attempting to cross. To add credibility to the stories he sent raiding parties out to gather supplies and created huge stores for his army.

To confuse the enemy as to his real intentions and get them to tire from reacting to him he conducted numerous crossing feints up and down the river. At night his soldiers would build large fires on barges, load into boats, start across the river and then turn back. At first the enemy would deploy their troops to respond to these feints but as time went on they became conditioned to the false alarms and responded less and less.

Alexander had had his boats carried overland 110 miles and placed in a creek that was hidden from the enemy by a wooded island. During a violent thunderstorm they

crossed the river, caught the enemy by surprise and defeated him. (16,424-426)

The Civil War

Confederate Secret Weapon

Nathan Bedford Forrest tricked a superior Federal force into surrendering using white phosphorus. Four Union blockhouses blocked his path and he had no artillery to knock them down. He sent a message to the Union commander that he wanted to meet him under a flag of truce to discuss the situation. The two commanders met on horseback and Forrest

. . . informed the Federal officer, in confidential tones, that he possessed a "secret weapon" capable of burning up both defenses and defenders in a few minutes.

He produced a menacing-looking brown bottle which he flamboyantly dashed against a tree stump. The stump was at once bathed in a dazzling, fast-consuming display of fire. (30,3)

The Union commander surrendered without a fight.

The Peninsula Campaign

MG Magruder's Confederate Army faced General McClellan's Army of the Potomac in April 1862 on "the Peninsula" between the James and York rivers. Magruder sent men posing as deserters to tell the Union soldiers that ". . . at least 50,000 entrenched Rebels barred" their way. (30,4) The Confederates really had only 13,580 soldiers in the area. The Union soldiers started moving on 4 April and

. . . came to a dead halt when they were confronted by trenches and redoubts from which poked the muzzles of more guns than even McClellan had brought along. McClellan did not know that more than half of the cannons were actually "quaker guns," peeled logs painted black and bored out to look like the real thing. (30,6)

The Confederates created considerable activity behind their lines--troops and artillery were moving, bugles were blowing, and campfires blazed for miles. This prompted the cautious McClellan to ask Washington for more men and artillery. (30,4)

McClellan received the troops he had requested and resumed movement on 3 May. When he reached the Rebel lines he found them abandoned. This ruse had given the Confederates a month to shift forces in order to block his move toward Richmond. If McClellan had pressed the enemy when he first arrived he could have easily defeated them and the road to Richmond would have been open. (30,6-10)

CHAPTER IV
WORLD WAR I AND THE INTERWAR YEARS

Deception at Sea

The use of deception is not restricted to land campaigns. During World War I the German ship Emden was made to look like an English cruiser by adding a dummy fourth funnel.

The British also made dummy warships by using old merchant ships and adding ballast, funnels, and false additions out of canvas and lumber. Several German submarines attacked these warships.

German submarine captains were claiming kills they had not achieved. This led the German high command to demand proof of a kill. The proof could consist of a log book, photograph, or some other physical evidence from the ship they sank. When the British found this out they took three tramp vessels and modified the sides of the deckhouses so they could be dropped down to allow concealed guns to fire. Buoyant cargoes such as Canadian spruce were fastened to bulkheads and hatches were made watertight. Most of the crew was hidden below deck so that the crew looked the right size for a cargo ship.

When the ship was attacked the crew would use a special pipe from the smokestack to let smoke billow out the side of the ship indicating a "hit" by the enemy. The crew,

including the Captain with a pack of papers, would escape in a lifeboat, abandoning ship. The life boat would stop at a given point so that when the submarine surfaced nearby it made a good target for the British gunners. (30,45-60)

The Belfort Ruse

In 1918 General Bundy met with General Pershing in the city of Belfort, France. They discussed plans for a massive American attack which was to be launched toward Mulhouse through the Belfort Gap. A total of seven divisions would participate.

Americans, dressed in French uniforms, surveyed the area--charting first aid station locations, artillery ranges and fields of fire. Supply dump locations were chosen, obstacles were noted on maps, and lines of communications were designated. Elaborate timetables and schedules were worked out in detail. The materials required for building and repairing bridges were estimated. The 29th Division simulated the radio traffic of an American Corps.

At his hotel room in Belfort an officer wrote down the details of the plan and then threw his carbon paper in the trash can so it would be found by German agents. All of this was an elaborate deception plan for the actual attack was at St. Mihiel. Even General Bundy did not even realize that all of the preparations were part of a ruse. (30,61-75)

Later, when Pershing was asked about the attack, he grinned and commented "Rather think we outfoxed'em." (30,75)

The Interwar Years

All types of deception operations can be said to be directed at misleading, misinforming, or confusing an opponent on only two basic types of questions. The first is to deceive him concerning one's own intentions, the second is to deceive him concerning one's own capabilities. (8,126)

Secret Rearming

During the years between the World Wars the Germans secretly rearmed. The Germans built submarines for foreign customers during the interwar years. "Before they were handed over to their new owners, each one was tested long and thoroughly." This was the method of training officers and other key people of the German Navy for future submarine operations. (23,22)

Ward Price, a correspondent for the London Daily Mail, printed disinformation provided to him by the Germans. He did not know that the information he was receiving was false. In February 1934 he was told by Goring that the Germans only had 300 aircraft and that most of them were obsolete.

At this same time Hitler told Anthony Eden that Germany was defenseless in the air. Hitler told Eden that he had no desire for offensive weapons and would like to see all nations do away with military aircraft. He said that he planned to limit the Luftwaffe to 30 percent of the planes of its combined neighbors or 50 percent of the number the French had--whichever number was smaller. Since his

aircraft were for defensive purposes they would build only short range defensive aircraft--no bombers.

Inflated Capability

In 1935 the Germans changed their deception campaign to portray the army and Luftwaffe as being larger than they actually were. In March 1935 Price printed a scoop--the story of the existence of the Luftwaffe. Hitler told Eden that he now had "parity" with the Royal Air Force.

To portray the Luftwaffe as stronger than it actually was they entered souped-up, prototype aircraft in airshows. They also conducted carefully planned tours to visiting aviation experts to impress them with the quantity and quality of their air force.

The French Chief of the Air General Staff was invited to Germany for a tour. He was given a mass bombing display, walked by rows of new fighters, and toured a state of the art aircraft factory. They took him up in a slow courier plane to view the factory from the air. As they were landing the pilot slowed to almost stall speed and a fighter streaked past at full throttle. Both planes landed and the general was told the fighter was their latest production fighter and that three assembly lines would open for it within two weeks. Actually it was a prototype model and one of the only three that were ever built.

Charles Lindbergh made three trips to Germany and provided information to American Intelligence. In 1937 he reported that the Luftwaffe had 10,000 planes of which 50

percent were bombers. He gave their current production as between 500 and 800 planes per month with a capability to produce 20,000 per year. These figures portrayed the Luftwaffe as being stronger than the other European countries combined. In actuality, Germany had 3,315 planes (1246 were bombers) and production was less than 300 per month.

In January 1938 a German airplane set a new speed record of 394.6 miles per hour (mph). This broke the old record by more than 50 mph and provided more credibility to the stories of the strength of Germany. The plane was a custom built, one-of-a-kind experimental model but the Germans passed it off as a production model.

In March 1936 Hitler sent a division (3000 men) to occupy the Rhineland the British estimated their strength to be 35,000 men and the French estimated it to be 265,000. The French refused to take any action unless the British joined them and the British refused. (31,15-29)

When Germany invaded Austria they had to remove troops from the French border. German propaganda had focused on "... the impregnable fortifications of the Siegfried Line . . . but in fact the line was a sham." At this time the French had one of the most powerful armies in the world. Because of their experience in trench warfare in World War I and the Maginot Line that they had built they believed the German propaganda. These bluffs enabled Hitler to annex Austria and Czechoslovakia without a fight. (23,23)

CHAPTER V

WORLD WAR II

Battle of El Alamein

In the Battle of El Alamein the British used a special force of 2,000 men to build dummies of 500 tanks, 800 artillery pieces, 2,000 trucks and cars and 3,000 people. These dummies concealed actual preparations by drawing attention away from the objective and focusing the enemy on an unimportant sector. (29,51)

In the area where the actual attack was to take place supplies were stored in trenches to conceal them from view. Old roads were used that already had vehicle tracks on them. The infantry divisions that were on line moved their reserves forward as close as possible to the front. The reserve area was subsequently occupied by new divisions that had been secretly moved into the sector. Support troops moved into existing ditches and trenches to allow new logistical elements to take over existing bivouacs. All of these moves were done at night so that the enemy did not realize that there was a build up in the area.

Three weeks before the attack two armored divisions moved 15 miles east of El Alamein and dispersed to give the impression that they were preparing for a static war. About a week later part of them were taken out and replaced by dummies. A fake water line was laid to support this

sector. The trench for the pipe was dug in the daytime and the pipe placed in the trench. At night the pipe was pulled out and the trench covered up to simulate that section's completion. The next day the same pipe was used to continue building the water line. Radio transmissions indicated that armor units were still in the south after they had taken up their positions for the attack. (29,52-53)

Operation Mincemeat

Operation Mincemeat began in early 1943 in an attempt to deceive the German High Command about the invasion of Sicily. The Allies wanted them to think the invasion would be on the Aegean Coast rather than Sicily. The Allies took a dead body, dressed him in a Royal Marine uniform, placed documents including a fictitious operations order in a briefcase strapped to the body, and released it from a submarine so that it would wash ashore in Spain. A certain town had been targeted because the Allies knew the Germans had a reliable agent working there.

Captured documents after VE Day show that the Germans thought the main landing would be in the Eastern Mediterranean and that Sicily was to be a mere diversionary attack. Mussolini had disagreed but Hitler wrote him a strong letter insisting that Mussolini was wrong. Hitler backed up his assertion with the recently discovered order.

Actions taken by the Germans included moving a Panzer Division from France to the Peloponnesus and ordering

the Navy to install new minefields in the Eastern Mediterranean. Two weeks after the invasion Hitler still thought it was a diversion and sent Rommel to Greece to command the troops that were to repel the Allied main effort. (30,126-128)

Overlord

"In wartime, Truth is so precious that she should always be attended by a bodyguard of lies." This statement by Winston Churchill on 30 November 1943 clearly set the tone for the deception plan to conceal the Allied invasion of June 1944. (2,1)

In May 1944 a Field Marshal Montgomery look alike arrived on Gibraltar in the British Prime Minister's private airplane. This caused the German Staff to hold five divisions in the South of France even though Rommel wanted them on the channel coast of France. (30,129-130)

. . .it was only one tiny facet of a master plan of deception which was conceived and carried out to a degree that gives it the right to be called the greatest hoax in history. Never before had such effort on such a scale been counted upon to play as important a part in a military operation. And its success was far beyond the most optimistic expectations. (30,130)

There were two plans--"Bodyguard" was the strategic deception plan to induce the enemy to make faulty strategic dispositions. "Fortitude" was the tactical deception plan which was "to mislead the enemy, when preparations could no longer be entirely concealed, as to the date, strength and area of attack." (30,132)

The First United States Army Group was created on paper for the purpose of convincing the Germans that Pas de Calais would be the invasion point. Allied radio traffic consisted of transmissions from nonexistent divisions and higher commands. To conceal the location of Montgomery's headquarters at Portsmouth, signals were carried by landline to Kent and then transmitted.

The two follow-up armies (the First Canadian and Third American) were portrayed as the main assault forces and were to land at Pas de Calais. French Resistance received fake instructions to sabotage Pas de Calais communications. (30,131-135)

Old barges and surplus freighters were sunk near Dover to serve as a breakwater. When the Germans learned this it gave them a "clear sign" that the Allies would attack from this direction. (30,137) Dummy landing craft and dummy tanks were used to reinforce this misconception. The British controlled where people could and could not go in order to preserve the secrecy of the real plan. The RAF controlled when and where reconnaissance flights could penetrate to insure that the Germans saw what the Allies wanted them to see and nothing more.

British operatives in Sicily, Spain, Portugal and Sweden asked for copies of Michelin Map Number 51 from bookshops. This was the tourist map of the roads and attractions of Pas de Calais. (30,137-140)

"After many weeks of fighting in Normandy, the Germans still did not weaken their Pas de Calais defenses, and had even reinforced them with two divisions from the Russian front." When the Germans finally realized there would be no invasion at Pas de Calais the Normandy effort was made to look larger than it was by using dummy landing beaches. (30,146)

The Eastern Front

When able to attack, we must seem unable; When using our forces, we must seem inactive; when we are near, we must make the enemy believe we are far away; when we are away, we must make him believe we are near. Hold out baits to entice the enemy, feign disorder, and crush him. [Sun Tzu (24,24)]

Hitler had told Franz Halder, chief of staff of the army high command, "You will never learn what I am thinking. And those who boast most loudly that they know my thought, to such people I lie even more."
(1,39)

Barbarossa

The senior German field commanders were told that Barbarossa was a contingency plan in case Russia changed its policies toward Germany. Information was leaked that the buildup on the Eastern Front was in preparation for Operation Sea Lion, the invasion of Britain. The training for the invasion participants was located in the east so it could take place away from British reconnaissance flights and bombers.

Berlin stepped up propaganda against Britain and stopped it against the USSR. They executed heavy air raids against Britain and redeployed 21 divisions westward. These

divisions were second rate and not in the best condition for combat. (1,39-40)

The German public was deceived and believed the German High Command was planning to invade England. Radio programs played musical requests which showed that the elite troops were on the ". . . Western Front while lower quality defensive formations were in the East." (28,203)

The Germans began moving 96 infantry divisions into assembly areas 12 days before they attacked. A total of 31 panzer and motorized divisions moved into position only 4 days prior to the attack. These units moved at night and camouflaged themselves in the woods during the day. The attack on the Soviet Union was launched in June 1941. (28,211)

Deception can have adverse effects also. The Soviet Union's secrecy as to its strength led German Intelligence to estimate their strength at 247 divisions rather than the 360 that they had. If Hitler and the German High Command had really known their strength they might not have opened a second front. (8,133)

In December 1941 the 1st Panzer Division was surrounded by Soviet troops. They were directed to breakout and link up with other German forces to the west. Snow prohibited cross country movement so they were restricted to the road nets. They conducted a diversionary breakthrough to the north and when the Soviets shifted forces to meet

this attack they launched the main attack to the west. Artillery had been positioned so that it could shift its fires to cover the main attack. (20,27-29)

The German troops on the diversionary attack did not realize that they were not the main effort. "The division commander felt that the soldiers who were carrying out the feint would not fight with quite the same zeal if they knew that they were being used merely to deceive the Soviets." (20,27-28)

1942

The German plan on the Eastern Front in 1942 focused the main effort in the south. The Army Group South commander requested 39 more divisions for a total of 85. He was given a total of 90 ". . . but 25 of them were Italian, Rumanian, or Hungarian and not trained, equipped, or motivated to fight on the Eastern Front." His German units were not much better as they were short officers and NCOs, had too many new recruits and lacked sufficient mobility equipment. (34,75) Hitler tried to convince his soldiers that they were as good as they had been previously. (34,76)

On 12 May the Soviets attacked in the south and in 16 days had lost 1500 tanks and almost a quarter of a million men. The Germans wanted the Soviets to focus on the center sector rather than the South. The German Army Group Center issued a Top Secret directive saying "The OKH [German High Command] has ordered the earliest possible resumption

of the attack on Moscow." The code name of the operation was KREML but it was only a paper operation. (34,77)

Regiments were issued maps of the Moscow area and the staffs began conducting planning conferences for Operation KREML with a start date of 1 August. Only the Chiefs of Staff and branch chiefs knew that this was a ruse. The Luftwaffe sent reconnaissance flights over Moscow and POW interrogators were given questions to ask about the city's defenses.

The Soviets shot down an airplane with a Panzer Division's operations officer aboard carrying a copy of the real plans. KREML operations continued and the Soviets thought that the real plans were a deception operation and ignored them. (20,78) The deception worked and the Soviets shifted forces from the South to the center. (34,80-82)

The Battle of the Bulge

A successful German counterattack in the Ardennes during December 1944 depended on completely surprising the Allies. The Germans wanted to create the impression that the entire operation was a defensive move to stop the Allied drive to the Rhine River and the Ruhr. The plan was formulated in October but security was so tight that even the generals at corps level were not informed until mid-November. (30,161)

The Allies had a breach of the West Wall in the area near Aachen. Because of this breach, Generals Montgomery

and Bradley were expecting strong defensive formations to be placed in this area by the Germans. The Germans tried to reinforce this impression while the real buildup was occurring in the Ardennes area. (30,161)

In October the German High Command issued a directive to their commanders on the Western Front stating that they could not go on the offensive at this time and that reserve forces should be assembled to assure that the West Wall could be defended. In November another directive was published which stated that two reserve forces would be positioned to counter an anticipated allied attack.

These directives clouded the true mission of the forces being assembled. In the vicinity of Cologne the Sixth Panzer Army prepared for its mission to strike in the northern Ardennes. In the Eifel the Fifth Panzer Army prepared to strike in the center. (14,10)

German security measures remained very stringent. All messages were carried by officer couriers, greatly reducing the chances of the real plan being compromised by the use of telephones or teletypes. (14,12) When troops had to move near the front in the Ardennes area they did it at night and fighters flew overhead at low levels to cover their noise. When vehicles left the roads all wheel tracks were brushed away. Special charcoal that burned without giving off smoke was issued to many of the units. The 5th Panzer Army had its officers take off their distinctive panzer uniforms and wear the drab infantry uniforms. A battalion of civilian workers constructed barracks and other

facilities in a rural area between Cologne and Dusseldorf for the 25th Army. There was not a 25th Army on the western front. (30,161-162)

The Naval Battle

By 1945 the Germans had dozens of new submarines that were very effective operating against Allied convoys in British coastal waters. Part of these waters were protected by minefields. The Germans avoided these minefields because ". . . the new submarines were far too valuable to risk their destruction by known hazards like this." (23,52) To limit the areas where convoys had to be escorted the Allies wanted to make the Germans believe there were more minefields than there actually were.

A double agent fed information to the Germans from a secret Royal Navy report on submarine sinkings. These reports attributed the sinkings to mines and gave the date, time, and location. As the German Navy saw more and more restrictions being placed on their submarine operations they began to doubt these reports. Then luck came into play--a submarine hit a mine that had floated into the location of one of the "imaginary minefields." Before sinking they radioed their location and said they had hit a mine. This provided credibility to the previous reports and "virtually closed off 3,600 square miles of sea to the German Navy's submarines." (23,53)

The Pacific

Tinian

General Henry H. ("Hap") Arnold, the Army Air Force Chief of Staff, wanted the Marianas taken (specifically Guam, Tinian, and Saipan) for later use as B29 bomber bases because the Japanese homeland could be bombed from bases on these islands. Admiral Ernest J. King, the Navy Commander-in-Chief, described the Mariannas as the "key to the Central Pacific". (30,50)

On 24 July 1944, the Marines landed on the island of Tinian in the Marianas. This small island of 50 square miles had 9,000 Japanese soldiers on it. During the 1930s it had been used as the objective for an amphibious assault problem at the Marine Corps School in Quantico. The island sits on a pedestal of coral reefs that range from 3 to 100 feet high and there are only three beaches where it is possible to land troops.

The best beach to land troops on Tinian was in front of Tinian Town and was referred to as the front door to the island. Asiga Bay was the second best location for an assault landing and was referred to as the side door. The island's back door on the northwest was seemingly blocked by off shore coral reefs. This rear approach was considered by the Japanese to be impossible and was largely ignored by them when they prepared their defenses of the island. Marine Intelligence picked up on this fact. (30,148-151)

The Marines planned to commit themselves to an "illogical" operation and use the back door to invade the island. The planners wanted to make sure that the Japanese continued to believe that the attack would be at Tinian Town or Asiga Bay. (30,152)

Destroyers, on 16 July, began attacking the beaches at Tinian Town and Asiga Bay nightly to chew up defenses and to discourage workmen on the beaches. The beaches were attacked by aircraft, including bombers from Saipan, during the day. Marine reconnaissance teams and Navy underwater demolition teams (UDT) went ashore at Asiga Bay and in the Tinian Town area. They left evidence of their visits to encourage the belief that the landings would occur at these locations.

On 23 July heavy preinvasion bombardment was initiated and a Navy UDT went to recon the reef at Tinian Town in daylight. The next day the ships again started bombarding the two beaches promptly at 0600 and at 0730 Marines loaded into boats and headed for shore. After travelling three miles under heavy Japanese fire they turned back as if to regroup. (30,152-155) A Japanese officer recorded in his diary "Perhaps the enemy is retreating." (30,155)

These landing craft were never supposed to reach shore. The real landing was taking place at the back door to the island and was practically unopposed. This small

island played an important part in the end of the war as the bombers which dropped the atomic bombs on Japan in August 1945 flew from Tinian. (30,156-157)

Okinawa

In April, 1945 an American infantry battalion commander stood on a small hill in Okinawa and looked across an estuary at a Japanese outpost. Supplies for the infantry battalion had to be carried across the rice paddy to his rear. Much of this paddy was in full view of the Japanese outpost.

A daily supply run to the battalion was made by jeep. The jeep driver would try to drive across the rice paddy and after a few feet would invariably get stuck. A bulldozer would eventually show up and push dirt out to the jeep and get him out of the mud. The supplies would be offloaded and carried across the rice paddy to the battalion. At night the engineers would improve the area that the dirt had been pushed on by adding more. Eventually a road was constructed across the paddy that could support the trucks required to supply the battalion for an offensive. The Japanese thought the road would only support a jeep. Smoke was used to conceal the crossing of a reinforced company over the estuary to take out the lookout post and begin an offensive. (19,15-20)

CHAPTER VI

POST WORLD WAR II

The Chinese Civil War

In May 1947, the Nationalist Chinese Army had captured the communist wartime capitol of Yen-an and a nearby supply depot. The communists needed to recapture the supply depot long enough to remove vital supplies. They used a brigade of 5000 men to simulate the retreat of four brigades to convince the nationalist general that he had the entire communist force retreating. (15,278-279)

The retreating brigade was formed into four columns with a rear guard. Each column had a radio to carry out communications and stirred up a "good deal of dust." The columns were retreating toward the Yellow River where other communist troops were "building boats at a feverish pace." (15,279)

The communists were outnumbered more than three to one (80,000 to 25,000) but because of their successful deception operation they attacked the depot with a force of 20,000 against a defending force of 6,000. When the depot asked for help the nationalist general refused to halt his pursuit of an entire army because of a small diversionary attack. To make sure that his assessment was correct the general sent aerial reconnaissance flights to the Yellow River. When they reported the construction of enough boats

to carry four brigades his perception of the situation was confirmed and he ignored the depot defenders pleas for help. (15,279-281)

The Six Days War

Israel had deliberately concealed the numerical and qualitative strengths of the Israeli Defense Force from its Arab neighbors. The Arabs perceived them as weak and attacked in June 1967. (8,132)

When the Egyptians closed the Straits of Tiran to Israeli shipping the Israelis realized that war was imminent. Moshe Dayan, the new defense minister, gave an interview to foreign journalists, in which he said it was too late to react unilaterally to the blockage and that diplomacy must be given a chance. In 38 hours the Israelis launched a preemptive attack.

As part of this deception several thousand Israeli soldiers were given leave and local newspapers featured photos of soldiers relaxing at the beach. Full mobilization of the reserves was not ordered until 1000 hours on the day of the attack.

Israel sent four landing craft north and then moved them back south under cover of darkness. Repeating this created the illusion that they were planning an assault from the sea. Reacting to this Egypt moved some of its fleet from the Mediterranean to the Red Sea. The Israeli Army camouflaged simulated armored forces to create the illusion

of a buildup where there was none. Increased aerial patrols in the Gulf of Aquaba and the Red Sea lured extra Egyptian aircraft to the area. (1,66-67)

During the war the Israeli Intelligence Service conducted an operation known as the "Fog of Battle". This operation was designed to mislead Arab commanders, lure them into ambushes, divert their forces to the wrong locations, and create confusion in their command and control system. Israeli news announced the capture of some towns within 24 hours while others were not announced until the war was over. In at least one case this resulted in Arab planes landing on an Israeli occupied airfield for hours after its capture by the Israelis. Israeli military communiques gave Arab commanders the impression they were desperately defending their villages and settlements when they were in reality deep behind Arab lines in the Sinai. (12,60-62)

1973 Yom Kippur War

President Anwar Sadat told a European foreign minister, in strictest confidence, that he would be in New York for a United Nations meeting in October. He knew that this information would be passed to the Americans and Israelis and that they would think there would be no attack while he was out of the country.

The Egyptians positioned bridge building equipment at equal intervals along the Suez Canal to help conceal the real crossing points. They constantly shifted land and

naval units under the guise of preparing for a large training exercise. The bridging equipment was shifted back and forth to suggest training activity and the Egyptians demobilized 20,000 troops two days before they attacked. (1,71-72)

The Egyptians spread rumors about their lack of spare parts and the resulting poor readiness posture. They concealed the delivery of new improved equipment furnished by the Soviet Union. During the spring of 1973 the Egyptians had held several major mobilization and war exercises to get the Israelis accustomed to the cycle of large build-ups, exercises and demobilizations.

The Israeli Intelligence Service gave the risk of war as low. The Minister of Defense did not agree and ordered a partial mobilization of the Israeli Defense Force. The mobilization costs were expensive and when war did not come the reliability of the Intelligence Service increased in the eyes of the political leaders. (9,21-30)

Arab terrorists "held up a train with Jewish immigrants from Russia enroute to Vienna" on 28 September. This diverted the attention of Israeli political leaders from signals about the impending war. (9,31-32)

The Egyptians mobilized their reserves in late September with orders stating they would "be released on 8 October, when the maneuvers end." The Egyptians had mobilized their reserves at least twenty times that year and

the Israeli Intelligence agency had grown accustomed to this pattern of mobilization followed by training exercises. When the Arabs attacked the Israelis were caught unprepared. (9,33)

The Raid on Entebbe

While planning for the hostage rescue at Entebbe in July 1976 the Israelis leaked to the press that they were planning large-scale attacks on Palestine Liberation Organization (PLO) targets in Lebanon. The objective of these attacks would be to capture prisoners who could be traded for the hijacked passengers. This plan diverted attention away from a possible attack on the hostage site itself. The attack was a complete surprise. (8,128)

CHAPTER VII

THE SOVIETS AND DECEPTION

The Great Patriotic War

The Soviets used deception at both the tactical and strategic level during World War II. They simulated false boundaries to confuse the Germans. When the Germans attacked they often found that the real front was 1 to 1.5KM further forward. Soviet artillery would then exploit their premature deployment. (24,29-30) Soviet soldiers pretended to surrender and then suddenly fired on their captors at close range.

In 1942 a Soviet rifle battalion conducted a morning attack in weather 43 degrees below zero. When heavy casualties stalled the attack the surviving infantrymen lay motionless in the snow for 10 hours and resumed the attack at dusk. (29,27-30)

The Soviets believe in the effectiveness of camouflage and used 15% of their engineer forces to camouflage battle formations. (33,19) The Soviets dug and camouflaged fake artillery emplacements. To add to the realism vehicle tracks and some troops were added to create the illusion of activity. Russians were known to have worn German uniforms during combat operations on several occasions. (32,27-30)

Stalingrad

To conceal the autumn 1942 counteroffensive near Stalingrad the Soviets moved forces at night and then dispersed and camouflaged them in the daytime. Twenty-two bridges were built for the Don River crossing. Five of them were dummies to cause the Germans to commit their forces to a useless part of the battlefield. Troops moved to their assault positions utilizing roads through depressions or behind reverse slope hills to prevent being seen by the Germans. Loudspeakers were directed toward enemy positions to help block out engine noise. (18,42)

1944 Offensive

To preserve the secrecy of the 1944 Soviet offensive in Byelorussia and the Ukraine the campaign plan was communicated orally to only a few commanders. Strict radio silence was maintained and extensive use of decoys and deceptive maneuvers were employed. (27,26)

The plan for the Luou-Sandomir operation in July 1944 was for the main attack to be in the direction of Luou. A secondary attack would be toward Stanislav to the south.

The 1st Ukrainian Front planned to conceal the axis of attack by simulating a big build-up in the secondary attack direction. Two tank armies, a tank corps, several combined-arms formations, aircraft, and artillery were simulated in the zone of the secondary attack. Engineers

simulated repairing roads and constructing bridges. Tanks and tractors moved close to the enemy lines to draw attention to the area where the dummy equipment was concentrated. Dummies of 1000 tanks, 1300 mortars, and 300 other vehicles were built.

Train loads of dummy equipment were offloaded at night. The empty trains always left the unloading points in the mornings after daybreak. All transportation paperwork required for a real equipment shipment was drawn up. The unload sites were heavily guarded to prevent the ruse being given away.

The "tanks" moved from the unload point to the staging area using the roads the engineers had built. Detours were built to bypass inhabited areas. Real tanks moved during the daytime and some made stops near inhabited areas for maintenance. During day halts they did a poor job of camouflaging their tanks. Night tank moves were simulated using wheeled vehicles with their side lights on and loudspeakers simulating the roar of tank engines.

In the mock concentration the camouflage of dummy equipment was continually improving. During the last two days before the offensive, measures were taken to simulate preparation for offensive operations. These actions included several reconnaissance-in-force operations, clearing lanes through minefields and the simulation of units advancing to departure areas. The Germans transferred two divisions to the Stanislav direction.

The planning for this operation had been conducted by a limited number of generals and officers in the Front and Army Headquarters. There were no written documents, the commanders of units received verbal orders only. The real tanks were unloaded from trains at night and the empty trains left before daylight. The tanks went immediately into prepared areas where they were camouflaged. (18,43-44)

Smoke

The Soviets used smoke to conceal river crossing operations. During the Dnieper River crossing in 1943 both real and simulated crossing sites were concealed by smoke. The Luftwaffe sent 2300 flights over these sites but only scored six direct hits. They also used smoke to conceal tanks during attacks. Some of these smoke screens were quite extensive such as when they employed a smoke screen along 600KM of frontage near Berlin. (24,25)

Soviet Deception Doctrine

The Soviets believe deception includes basic camouflage [for concealment and "imitation" (decoys)], "demonstration" maneuvers and disinformation. (27,24) Soviet doctrine states that decoys must look like the appropriate form and reflect light, heat, and magnetic energy. They must also create the proper heat emissions, have a magnetic field around themselves, etc. They have "developed realistic simulations of personnel, tanks, armored personnel carriers, mortars, trucks, artillery,

missiles, field kitchens, command and control facilities, airfields, fuel storage depots, etc." (27,32)

Soviet commanders have basic guidelines for the application of deceptive practices. They take actions to deny the enemy the ability to identify troop and equipment locations. This degrades the enemy's ability to correctly assess their battle plans.

They believe that deceptive measures must be persuasive, plausible, timely, have continuity and that stereotypical or repetitive measures to conceal or deceive will not work. (27,27-28) They consider nighttime and inclement weather to be natural "masks". (27,29)

CHAPTER VIII

LESSONS LEARNED

As Barton Whaley stated ". . . the ultimate goal of stratagem is to make the enemy quite certain, very decisive, and wrong." (5,25-26)

Target the Deception Plan

When a deception plan is being formulated the plan must include who the plan is targeted against. Ultimately the deception must affect the enemy decision maker and mislead him into making an incorrect decision. Normally the deception plan will have to target some part of the enemy's intelligence agency. Before the decision maker is influenced the intelligence organization has to be convinced of the lie. (4,159)

The target of the plan must be one of the enemy's reliable sources of information. Since the intelligence analyst expects deception he tends to be skeptical of all information. This may lead the analyst to discount even accurate information if it comes from a source that is not deemed to be very reliable. The Soviets in 1942 discounted the accurate information and continued to believe the German deception in Operation KREML. (8,144)

Deception Causes Ambiguity or Misdirection

Deception may be classified ". . . into two types: A (for ambiguity) and M (for misdirection)." The type A

deception increases the number of alternatives and reduces the chance that the enemy will select the correct alternative. For example, when the Soviets built dummy bridges along with real ones for a river crossing operation as cited earlier.

The type M deception tries to reduce the ambiguity for the enemy and convince him that a particular alternative is the correct one. (5,22) The Allies did this when they convinced the Germans that the main effort of the cross-channel invasion would be directed at Pas de Calais.

Secrecy, Organization, and Coordination

Secrecy is an absolute: the enemy must not be allowed to find out that a deception operation is ongoing. If he does he will probably be able to deduce the real plan.

There are two levels of security in a deception operation. One level tries to protect the truth about what you intend to do while the other tries to protect the existence of the deception itself. (4,167-168)

Ideas, plans and preparations for future actions must be kept secret if we are to deceive the enemy. This will probably include deceiving some friendly forces until the last possible moment. To insure the secrecy of the Normandy invasion Eisenhower ordered a cut in all communications between Britain and Ireland because the latter had diplomatic relations with Germany. Visits to the

coastal regions where preparations were being made were forbidden. (25,92)

One of the best ways to insure secrecy is to restrict the number of people who actually know about plans. To protect the plan for the Ardennes offensive Hitler concealed the real plan from his own military leaders until the latest possible time. At the Army level a few officers and clerical people were told on 11 October. On 22 October commanders of major headquarters on the Western Front were told. On 3 November the field armies received information of the offensive. At this level "only the commanding generals and their aides-de-camp, chiefs of staff, and operations officers were permitted knowledge of the plan." All of these people "were given oaths of secrecy carrying a penalty of death." (14,11)

Corps commanders were informed of the plan in early December.

Division commanders were informed at various intervals in December. Regimental commanders were not informed until three or four days prior to the attack. Battalion commanders were briefed December 13 and 14. Noncommissioned officers and ordinary soldiers were told on the night of December 15 or the morning of the 16th. (14,11)

A well organized deception plan is one that has been planned to the smallest detail. This includes not only what information we want the enemy to get but how we plan to feed it to him. Our goal is to create a picture in his mind. To do this the plan must be well coordinated ". . . directed

from one central point--that being the highest headquarters controlling operational forces directly benefitting from the deception." (4,167-168)

Plausibility and Confirmation of the Lie

The lie should be woven into a story with an element of truth that can be confirmed by more than one source. While the credibility of sources are important the use of multiple sources will increase the chances that the enemy will give the information a higher reliability rating. Professor R.V.Jones, a key figure in British intelligence in World War II, stated

Deception becomes more difficult as the number of channels of information available to the victim increases. However, within limits, the greater number of controlled channels the greater the likelihood of the deception being believed. (14,20-21)

The enemy must believe that the deceiver is capable of the action for him to take any action ". . . people tend to dismiss unlikely events as impossible events." (5,15) In 1943 the Allies tried a series of deceptions, code named Cockade, to convince the Germans that they were going to try a cross-channel invasion of France in early September. The Germans did not think this was possible, ignored the information and continued sending troops to the Eastern Front. (4,168-170)

Adaptability of Deception

As the truth that the lie is tied to changes--so must the lie. Hitler had given Poland and Czechoslovakia an

ultimatum before invading them. Stalin and many others outside the USSR thought that they would be given some demands by the Germans before an invasion. German intelligence discovered this and Hitler took advantage of this information in his deception plan for Operation Barbarossa.

After the Normandy invasion the Allies realized that the Germans still expected the main invasion at Pas de Calais so they continued to use "Patton's fictional forces as a threat." (4,170-171)

Capitalize on Target Predispositions

If the enemy has strong predispositions ". . .the more a target will ignore or twist information inconsistent with them." Find out the enemy's predispositions and provide information which will reinforce them. (4,172) This is easier than trying to get them to change their minds.

When the British found a means to decode Germany's most secret messages during World War II they closely guarded this capability and code named the operation ULTRA. The deception value of ULTRA was that the Allies knew what the enemy was going to do and what the Germans thought they were going to do. The Allies built and modified their deception plans based on this information. (6,2-15)

Dr. Barton Whaley studied 232 military engagements that took place during the period from 1914 to 1973. He found that deception schemes took advantage of enemy

preconceptions in 84% (110 out of 131 times) of the cases. When the deception plan was keyed on preconception, surprise was achieved in 96% of the cases, but when the plan was not based on preconceptions, surprise occurred in only 81% of the cases. (5,7-9) These percentages reinforce the high value that should be placed on deception.

Feedback is Essential

To adapt the deception the deceiver must have feedback. An example of feedback was the use of ULTRA to read the German coded messages. This information not only let the Allies know the Germans future plans but it gave them information to determine how their deception operations were affecting the enemy.

Take Advantage of the Law of Small Numbers

Small sample sizes can lead to incorrect notions about the probability of an event taking place. Examples include the lack of an ultimatum for the Soviets from Hitler and the German weather study based on Allied landings in North Africa, Italy, and Sicily. The Germans noted that the Allies never attempt a landing unless the weather was favorable. Since the weather was supposed to be bad in early June 1944 they did not expect a cross-channel invasion to be attempted at that time. (5,12)

The Enemy Tires of False Starts

The enemy can be conditioned or gradually acclimatized. The Germans jammed British radar at dawn each

day and the British thought the interference was caused by atmospheric conditions. When the British grew to expect the interference the Germans jammed the radars to conceal ships leaving Brest in February 1942. (5,13)

Dr. Whaley's study ". . . showed that when one or more false alerts preceded the military engagement . . . surprise resulted in 92 percent of the cases." (5,16) The week prior to the attack on Pearl Harbor the U.S. had checked seven false submarine sightings. When sightings were made on December 4, 1941 the reports were ignored. The same thing happened in Australia before the Japanese attack on Darwin. There had been a series of false alarms. When the coastwatchers reported approaching aircraft, their warning was ignored.

The same thing happened at the beginning of the Korean Conflict. According to Secretary of Defense Johnson, intelligence sources had "cried wolf" so often that the U.S. ignored indications that something was about to happen in Korea in 1950. (5,17)

Deception Helps Achieve Surprise

Surprise can be used regarding the location, strength, intention, style, or timing of an attack. (5,15) Throughout the history of warfare most surprise attacks have been successful. One of the barriers to detecting a surprise attack is that often the enemy does not know what they intend to do. The Japanese did not decide to attack

the United States until September 1941. The Allies had a hard time agreeing on the way to invade Europe. The Egyptians and Syrians did not agree on the date and time to attack in the 1973 Yom Kippur War until three days before the attack. (9,9-12)

Surprise is often achieved by an enemy who is willing to take greater than normal risks. Stalin did not think that Hitler wanted to fight a two front war and he ignored all warnings of a German attack. The North Koreans did not think that MacArthur would risk an invasion at Inchon. (9,15) Michael I. Handel states in Perception, Deception and Surprise: The Case of the Yom Kippur War that "The greater the risk, the less likely it seems, and the less risky it actually becomes." (9,16)

The International Environment Aids in Deception

A noise barrier that helps an enemy achieve surprise is the international environment. The focus of U.S. leaders on the war in the Atlantic and Europe caused them to ignore the signals of the impending attack on Pearl Harbor. (9,16)

A relaxed international environment can also mislead. Prior to the 1973 Yom Kippur War the U.S. and USSR had enjoyed a period of detente and the Israeli borders had been calm. The Israelis thought that the Russians would intervene to keep the Arabs from breaking this peaceful coexistence by attacking Israel. (9,17)

Base Deception on Desired Action

"Deception must be based on what you want the enemy to do--not on what you want him to think." In Somalia in 1941 the British were outnumbered by the Italians two to one. Their deception plan had a goal of convincing the Italians that they would attack in the south. Instead of reinforcing in the south the Italians "withdrew to the north where the real attack was to take place!" (2,6)

Deception Can Be Cheap

There is little investment in men and material in a deception operation and the return on that investment can be very high. (1,109) Barton Whaley estimated that the

. . . total number of participants in the deception operations for the Allied invasion of Europe in 1944--the largest deception operation in history--was in all perhaps 2,000 soldiers, sailors, and airmen; none of whom were regular first line combat troops. (8,143)

Undesired Aspects of Deception

Deception can produce unwanted side effects. When the Allies tried to convince the Germans that they were going to attack Europe in 1943 they had to be very careful of the actions resistance groups would take. If the resistance groups did the wrong things they could have brought German wrath on themselves for an attack that would not take place. (5,37-38)

Successful deception operations to inflate capabilities can create three problems for the deceiver. First, the enemy may exert extra efforts to improve his

capabilities because of the perceived threat. The British and French made political concessions to Hitler because of the fear of German air superiority in order to gain time to catch up. They increased spending for air power and anti-aircraft defenses. These actions made them in much better shape when war eventually started.

Second, their bluff may be called; or third, they may begin to believe their own deception. This was the case in the last days of the Third Reich. (8,132)

Pass The Lie With Care

If the information is too easily obtained the tendency is to discount it. Whaley observed that in 80% of the cases where a true leak had occurred they were dismissed as being part of a deception plan. He also observed that in 100% of the cases false plans were believed to be genuine. He concluded that "most of the time deception succeeds." The enemy is trying to determine what you plan to do and you let him find false information. (4,163)

General Comments

Attempts to exaggerate one's capabilities usually are identified with ambitious and aggressive leaders while attempts to conceal one's strength are frequently done by leaders who require secrecy and discretion. (8,132)

In the case of unequal opponents, deception (and surprise) can help the weaker side compensate for its numerical or other inadequacies. For that reason, the side that is at a disadvantage often has a more powerful incentive to resort to deceptive strategy and

tactics This implies the existence of an inverse relationship between strength and the incentive to use deception. (8,122-124)

In World War II the British used strategic deception more than the Germans. Israel used it in 1948, 1956 and 1967. The Arabs used it in 1973. The United States has rarely used deception at the strategic level. (8,122-124)

U.S. Army doctrine discusses the importance of seizing the initiative. Initiators of action have a better chance of achieving deception and, consequently, with surprising the enemy. (4,174-175)

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